

ASBESTOS ASSES SURVEY

H-K Building #: 21
Project Number: 0980193E
Project: G. HEILEMAN BREWERY "E"
Date Inspected: 03/21/89
Inspector: TIM SWARTZ

Building Number: 21/22
Building Name: BREWHOUSE/STOCK CELLARS
SEATTLE, WASHINGTON
Building Type: BREW/STOCK
Year Constructed: 1948

*****	AREA NUMBER: 01	AREA DESCRIPTION: Ground Floor-Part #21-Spent Grain Room	AREA AVERAGE % ASBESTOS: 22%	*****
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LOCATION OF THE MATERIAL	SAMPLE NUMBER	ASB	MATERIAL DESCRIPTION	O&M CODE	QUANTITY	UNITS OF MEASURE	PIPE ID	EXP POT	PL	REMOVAL COSTS	REPLACEMENT COSTS	TOTAL COSTS
above caustic tank & along east wall	00-356573	25%	pipe covering	OMA	50 ft.	4 in. O.D.	HPS/R	27	III	\$446	\$279	\$725
southeast area-by caustic tank	00-356577	0%	pipe covering	OMA	30 ft.	8 in. O.D.	DW					
above caustic tank & along south wall	00-356581	10%	wrapped cardboard/paper pipe	OMA	42 ft.	8 in. O.D.	DW	27	III	\$594	\$425	\$1,019
center E to W-along beam-at ceiling	00-356585	15%	wrapped cardboard/paper pipe	OMA	25 ft.	6 in. O.D.	DW	27	III	\$324	\$203	\$527
along east wall-near ceiling	00-356585	15%	wrapped cardboard/paper pipe	OMA	70 ft.	4 in. O.D.	DW	27	III	\$624	\$391	\$1,015
near north entrance	00-356585	15%	wrapped cardboard/paper pipe	OMA	26 ft.	8 in. O.D.	DW	27	III	\$368	\$263	\$631
above caustic tank & along east wall	00-356585	15%	wrapped cardboard/paper pipe	OMA	30 ft.	4 in. O.D.	DW	27	III	\$268	\$167	\$435
center N to S-along beam-at ceiling	00-356585	15%	wrapped cardboard/paper pipe	OMA	12 ft.	4 in. O.D.	DW	27	III	\$107	\$67	\$174
above caustic tank & along east wall	12-356574	15%	mjp on pipe covering	OMA	20 ft.	4 in. O.D.	HPS/R	27	III	\$562	\$312	\$874
	12-356575	10%						27	III			
	12-356576	25%						27	III			
southeast area-by caustic tank	13-356578	0%	mjp on pipe covering	OMA	3 ft.	8 in. O.D.	DW	27	III	\$144	\$85	\$229
	13-356579	0%						27	III			
	13-356580	0%						27	III			
above caustic tank & along south wall	14-356582	35%	mjp on wrapped cardboard/paper	OMA	70 ft.	8 in. O.D.	DW	27	III	\$3,369	\$1,981	\$5,350
	14-356583	40%						27	III			
	14-356584	50%						27	III			
near north entrance	15-356586	50%	mjp on wrapped cardboard/paper	OMA	2 ft.	8 in. O.D.	DW	27	III	\$96	\$57	\$153
along east wall-near ceiling	15-356586	50%	mjp on wrapped cardboard/paper	OMA	10 ft.	4 in. O.D.	DW	27	III	\$281	\$156	\$437
above caustic tank & along east wall	15-356586	50%	mjp on wrapped cardboard/paper	OMA	6 ft.	4 in. O.D.	DW	27	III	\$169	\$94	\$263
center E to W-along beam-at ceiling	15-356586	50%	mjp on wrapped cardboard/paper	OMA	1 ft.	6 in. O.D.	DW	27	III	\$39	\$23	\$62
center N to S-along beam-at ceiling	15-356586	50%	mjp on wrapped cardboard/paper	OMA	1 ft.	4 in. O.D.	DW	27	III	\$28	\$16	\$44
	15-356587	60%						27	III			
	15-356588	60%						27	III			

AREA COMMENTS

The materials are in fair condition with minor localized contact and water damage. The materials are approximately 5' to 14' from the floor. At a minimum, it is recommended that the materials be properly repaired and monitored. If removal is planned, gross removal procedures are recommended. This appears to be a medium traffic area.

AREA # 01 TOTAL \$7,419 \$4,519 \$11,938

*****	AREA NUMBER: 02	AREA DESCRIPTION: Ground Floor	AREA AVERAGE % ASBESTOS: 27%	*****
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LOCATION OF THE MATERIAL	SAMPLE NUMBER	ASB	MATERIAL DESCRIPTION	O&M CODE	QUANTITY	UNITS OF MEASURE	PIPE ID	EXP POT	PL	REMOVAL COSTS	REPLACEMENT COSTS	TOTAL COSTS
part 21-brew kettle rm-under S kettle	00-356573	25%	pipe covering	OMA	80 ft.	4 in. O.D.	HPS/R	26	III	\$714	\$446	\$1,160
part 21-brew kettle rm-under S kettle	00-356573	25%	pipe covering	OMA	5 ft.	6 in. O.D.	HPS/R	26	III	\$65	\$41	\$106

666

ASBESTOS ASSESSMENT SURVEY

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Project Number: 0980193E
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Building Number: 21/22
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part 21-west wall	00-356573	25X	pipe covering	OMA	20 ft. 6 in. O.D. HPS/R	26 III	\$260	\$162	\$422
stairwell in part 21	00-356573	25X	pipe covering	OMA	5 ft. 4 in. O.D. HPS/R	26 III	\$45	\$28	\$73
stairwell in part 21	00-356573	25X	pipe covering	OMA	3 ft. 6 in. O.D. HPS/R	26 III	\$39	\$24	\$63
part 21-brew kettle rm-under N kettle	00-356573	25X	pipe covering	OMA	45 ft. 4 in. O.D. HPS/R	26 III	\$401	\$251	\$652
part 21-brew kettle rm-under N kettle	00-356573	25X	pipe covering	OMA	16 ft. 6 in. O.D. HPS/R	26 III	\$208	\$130	\$338
part 21-against south wall-along ceiling	00-356573	25X	pipe covering	OMA	20 ft. 4 in. O.D. HPS/R	26 III	\$178	\$112	\$290
part 21-brew kettle rm-along east wall	00-356573	25X	pipe covering	OMA	45 ft. 4 in. O.D. HPS/R	26 III	\$401	\$251	\$652
part 22-cellar H stock-along east wall	00-356573	25X	pipe covering	OMA	180 ft. 4 in. O.D. HPS/R	26 III	\$1,606	\$1,004	\$2,610
part 22-cellar H stock-along east wall	00-356573	25X	pipe covering	OMA	180 ft. 8 in. O.D. HPS/R	26 III	\$2,547	\$1,820	\$4,367
part 21-west wall	00-356573	25X	pipe covering	OMA	40 ft. 8 in. O.D. HPS/R	26 III	\$566	\$404	\$970
part 21-brew kettle room-catwalk	00-356573	25X	pipe covering	OMA	130 ft. 4 in. O.D. HPS/R	26 III	\$1,160	\$725	\$1,885
part 21-brew kettle room-catwalk	00-356573	25X	pipe covering	OMA	88 ft. 6 in. O.D. HPS/R	26 III	\$1,142	\$714	\$1,856
part 21-west wall	00-356573	25X	pipe covering	OMA	40 ft. 4 in. O.D. HPS/R	26 III	\$357	\$223	\$580
stairwell in part 21	00-356573	25X	pipe covering	OMA	3 ft. 10 in. O.D. HPS/R	26 III	\$57	\$42	\$99
pt 21-brew kettle rm-catwalk-ctr&E wall	00-356577	0X	pipe covering	OMA	35 ft. 4 in. O.D. DW				
pt 21-brew kettle rm-catwalk-ctr&E wall	00-356577	0X	pipe covering	OMA	10 ft. 6 in. O.D. DW				
part 21-against south wall-along ceiling	00-356577	0X	pipe covering	OMA	25 ft. 8 in. O.D. DW				
part 21-brew kettle rm-northeast area	00-356589	40X	pipe covering	OMA	25 ft. 6 in. O.D. PL	26 III	\$324	\$203	\$527
part 21-brew kettle rm-kettle at N end	01-356463	50X	boiler/tank insulation	OMB	830 sq.ft.	26 III	\$23,448	\$18,783	\$42,231
	01-356464	35X				26 III			
	01-356465	35X				26 III			
part 21-brew kettle rm-kettle at S end	02-356466	40X	boiler/tank insulation	OMB	830 sq.ft.	26 III	\$23,448	\$18,783	\$42,231
	02-356467	40X				26 III			
	02-356468	40X				26 III			
part 21-brew kettle room-catwalk	12-356574	15X	mjp on pipe covering	OMA	16 4 in. O.D. HPS/R	26 III	\$449	\$250	\$699
part 22-cellar H stock-along east wall	12-356574	15X	mjp on pipe covering	OMA	4 8 in. O.D. HPS/R	26 III	\$193	\$113	\$306
part 21-brew kettle rm-under S kettle	12-356574	15X	mjp on pipe covering	OMA	20 4 in. O.D. HPS/R	26 III	\$562	\$312	\$874
part 21-west wall	12-356574	15X	mjp on pipe covering	OMA	5 4 in. O.D. HPS/R	26 III	\$140	\$78	\$218
stairwell in part 21	12-356574	15X	mjp on pipe covering	OMA	1 10 in. O.D. HPS/R	26 III	\$63	\$39	\$102
part 22-cellar H stock-along east wall	12-356574	15X	mjp on pipe covering	OMA	4 4 in. O.D. HPS/R	26 III	\$112	\$62	\$174
part 21-against south wall-along ceiling	12-356574	15X	mjp on pipe covering	OMA	4 4 in. O.D. HPS/R	26 III	\$112	\$62	\$174
part 21-brew kettle rm-under N kettle	12-356574	15X	mjp on pipe covering	OMA	15 4 in. O.D. HPS/R	26 III	\$421	\$234	\$655
part 21-west wall	12-356574	15X	mjp on pipe covering	OMA	4 8 in. O.D. HPS/R	26 III	\$193	\$113	\$306
part 21-brew kettle room-catwalk	12-356574	15X	mjp on pipe covering	OMA	20 6 in. O.D. HPS/R	26 III	\$774	\$454	\$1,228
stairwell in part 21	12-356574	15X	mjp on pipe covering	OMA	1 6 in. O.D. HPS/R	26 III	\$39	\$23	\$62
stairwell in part 21	12-356574	15X	mjp on pipe covering	OMA	1 4 in. O.D. HPS/R	26 III	\$28	\$16	\$44
part 21-brew kettle rm-along east wall	12-356574	15X	mjp on pipe covering	OMA	10 4 in. O.D. HPS/R	26 III	\$281	\$156	\$437
part 21-west wall	12-356574	15X	mjp on pipe covering	OMA	8 6 in. O.D. HPS/R	26 III	\$309	\$182	\$491
	12-356575	10X				26 III			
	12-356576	25X				26 III			
pt 21-brew kettle rm-catwalk-ctr&E wall	13-356578	0X	mjp on pipe covering	OMA	8 4 in. O.D. DW	26 III	\$225	\$125	\$350
part 21-against south wall-along ceiling	13-356578	0X	mjp on pipe covering	OMA	2 8 in. O.D. DW	26 III	\$96	\$57	\$153
	13-356579	0X				26 III			
	13-356580	0X				26 III			
part 21-brew kettle rm-northeast area	16-356590	40X	mjp on pipe covering	OMA	12 6 in. O.D. PL	26 III	\$464	\$273	\$737
	16-356591	0X				26 III			
	16-356592	40X				26 III			
part 21-brew kettle rm-caustic tank	17-356593	0X	boiler/tank insulation	OMB	90 sq.ft.	26 III			

1839

H-K Building 21
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ASBESTOS ASS. SURVEY

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 Building Name: BREWHOUSE/STOCK CELLARS
 SEATTLE, WASHINGTON
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 Year Constructed: 1948

part 21-brew kettle rm-3M CIP tank-north	17-356594 0% 17-356595 0% 18-356596 40% 18-356597 50% 18-356598 40%	boiler/tank insulation	OMB	86 sq.ft.	26 III 26 III 26 III	\$2,430	\$1,946	\$4,376
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AREA COMMENTS

The materials are in fair to good condition with minor contact and water damage. The materials are approximately 1' to 10' from the floor. At a minimum, it is recommended that the materials be repaired and monitored. If removal is planned, extensive gross removal procedures are recommended. This appears to be a high traffic area.

AREA # 02 TOTAL \$63,857 \$48,641 \$112,498

***** AREA NUMBER: 03

AREA DESCRIPTION: 2nd Floor-Part #21

AREA AVERAGE % ASBESTOS: 35%

LOCATION OF THE MATERIAL	SAMPLE NUMBER	ASB	MATERIAL DESCRIPTION	O&M CODE	QUANTITY	UNITS OF MEASURE	PIPE ID	EXP POT	PL	REMOVAL COSTS	REPLACEMENT COSTS	TOTAL COSTS
stairwell between 1st & 2nd floors	00-356472	30%	pipe covering	OMA	20 ft.	4 in. O.D. HPS/R	26	III		\$178	\$112	\$290
stairwell between 1st & 2nd floors	00-356472	30%	pipe covering	OMA	8 ft.	10 in. O.D. HPS/R	26	III		\$151	\$112	\$263
stairwell between 1st & 2nd floors	00-356472	30%	pipe covering	OMA	8 ft.	12 in. O.D. HPS/R	26	III		\$176	\$135	\$311
kettle room-north area	00-356472	30%	pipe covering	OMA	140 ft.	4 in. O.D. HPS/R	26	III		\$1,249	\$781	\$2,030
kettle room-north area	00-356472	30%	pipe covering	OMA	16 ft.	6 in. O.D. HPS/R	26	III		\$208	\$130	\$338
kettle room-north area	00-356472	30%	pipe covering	OMA	15 ft.	8 in. O.D. HPS/R	26	III		\$212	\$152	\$364
kettle room-mezzanine-along south wall	00-356472	30%	pipe covering	OMA	10 ft.	12 in. O.D. HPS/R	26	III		\$220	\$169	\$389
kettle room-mezzanine-along north wall	00-356472	30%	pipe covering	OMA	5 ft.	6 in. O.D. HPS/R	26	III		\$65	\$41	\$106
kettle room-hops storage	00-356472	30%	pipe covering	OMA	40 ft.	4 in. O.D. HPS/R	26	III		\$357	\$223	\$580
kettle room-mezzanine-along south wall	00-356472	30%	pipe covering	OMA	10 ft.	10 in. O.D. HPS/R	26	III		\$189	\$140	\$329
kettle room-mezzanine-along north wall	00-356472	30%	pipe covering	OMA	30 ft.	8 in. O.D. HPS/R	26	III		\$424	\$303	\$727
kettle room-mezzanine-against east wall	00-356472	30%	pipe covering	OMA	18 ft.	8 in. O.D. HPS/R	26	III		\$255	\$182	\$437
kettle room-mezzanine-against south wall	00-356476	40%	wrapped cardboard/paper pipe	OMA	10 ft.	8 in. O.D. DW	26	III		\$141	\$101	\$242
kettle room-break room	00-356476	40%	wrapped cardboard/paper pipe	OMA	1 ft.	6 in. O.D. DW	26	III		\$13	\$8	\$21
kettle room-break room	00-356476	40%	wrapped cardboard/paper pipe	OMA	10 ft.	8 in. O.D. DW	26	III		\$141	\$101	\$242
kettle room-hops storage-northeast area	00-356476	40%	wrapped cardboard/paper pipe	OMA	10 ft.	6 in. O.D. DW	26	III		\$130	\$81	\$211
stairwell between 1st & 2nd floors	04-356473	50%	mjp on pipe covering	OMA	6	4 in. O.D. HPS/R	26	III		\$169	\$94	\$263
kettle room-north area	04-356473	50%	mjp on pipe covering	OMA	4	6 in. O.D. HPS/R	26	III		\$155	\$91	\$246
stairwell between 1st & 2nd floors	04-356473	50%	mjp on pipe covering	OMA	2	10 in. O.D. HPS/R	26	III		\$125	\$78	\$203
kettle room-mezzanine-along north wall	04-356473	50%	mjp on pipe covering	OMA	6	6 in. O.D. HPS/R	26	III		\$232	\$136	\$368
kettle room-mezzanine-along north wall	04-356473	50%	mjp on pipe covering	OMA	5	8 in. O.D. HPS/R	26	III		\$241	\$141	\$382
stairwell between 1st & 2nd floors	04-356473	50%	mjp on pipe covering	OMA	2	12 in. O.D. HPS/R	26	III		\$152	\$95	\$247
kettle room-north area	04-356473	50%	mjp on pipe covering	OMA	12	4 in. O.D. HPS/R	26	III		\$337	\$187	\$524
kettle room-hops storage-south area	04-356473	50%	mjp on pipe covering	OMA	12	4 in. O.D. HPS/R	26	III		\$337	\$187	\$524
kettle room-north area	04-356473	50%	mjp on pipe covering	OMA	3	8 in. O.D. HPS/R	26	III		\$144	\$85	\$229
kettle room-mezzanine-against east wall	04-356473	50%	mjp on pipe covering	OMA	4	8 in. O.D. HPS/R	26	III		\$193	\$113	\$306
	04-356474	50%					26	III				
	04-356475	60%					26	III				

ASBESTOS ASSESSMENT SURVEY

H-K Building No. 21
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Building Number: 21/22
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SEATTLE, WASHINGTON
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Year Constructed: 1948

234

kettle room-break room	05-356477	60%	mjp on wrapped cardboard/paper	OMA	1 8 in. O.D.	DM	26 III	\$48	\$28	\$76
kettle room-break room	05-356477	60%	mjp on wrapped cardboard/paper	OMA	2 6 in. O.D.	DM	26 III	\$77	\$45	\$122
	05-356478	50%					26 III			
	05-356479	50%					26 III			
kettle room-break room-whirlpool	06-356480	50%	boiler/tank insulation	OMB	550 sq.ft.		26 III	\$15,538	\$12,446	\$27,984
	06-356481	10%					26 III			
	06-356482	40%					26 III			

AREA COMMENTS

AREA # 03 TOTAL \$21,857 \$16,497 \$38,354

The materials are in good condition with minor contact and water damage. The materials are approximately 1' to 18' from the floor. At a minimum, it is recommended the materials be repaired and monitored. If removal is planned, gross removal procedures are recommended. This appears to be a high traffic area.

***** AREA NUMBER: 04			AREA DESCRIPTION: 3rd Floor-Part #21-Tank Bottom Room				AREA AVERAGE % ASBESTOS: 32%				*****		
LOCATION OF THE MATERIAL	SAMPLE NUMBER	ASB	MATERIAL DESCRIPTION	O&M CODE	QUANTITY	UNITS OF MEASURE	PIPE ID	EXP POT	PL	REMOVAL COSTS	REPLACEMENT COSTS	TOTAL COSTS	
below mash tub	00-356495	30%	pipe covering	OMA	55 ft. 4 in.	O.D. HPS/R	28	III		\$491	\$307	\$798	
below mash tub	00-356495	30%	pipe covering	OMA	35 ft. 6 in.	O.D. HPS/R	28	III		\$454	\$284	\$738	
north of mash filter	00-356495	30%	pipe covering	OMA	6 ft. 4 in.	O.D. HPS/R	28	III		\$54	\$33	\$87	
south of mash filter	00-356495	30%	pipe covering	OMA	10 ft. 8 in.	O.D. HPS/R	28	III		\$141	\$101	\$242	
below adjunct cooker	00-356495	30%	pipe covering	OMA	25 ft. 10 in.	O.D. HPS/R	28	III		\$472	\$349	\$821	
below convertor tank	00-356495	30%	pipe covering	OMA	30 ft. 6 in.	O.D. HPS/R	28	III		\$389	\$243	\$632	
just northeast of caustic tank	00-356495	30%	pipe covering	OMA	15 ft. 4 in.	O.D. HPS/R	28	III		\$134	\$84	\$218	
just northeast of caustic tank	00-356495	30%	pipe covering	OMA	5 ft. 6 in.	O.D. HPS/R	28	III		\$65	\$41	\$106	
below convertor tank	00-356495	30%	pipe covering	OMA	60 ft. 4 in.	O.D. HPS/R	28	III		\$535	\$335	\$870	
below adjunct cooker	00-356495	30%	pipe covering	OMA	55 ft. 6 in.	O.D. HPS/R	28	III		\$714	\$446	\$1,160	
below adjunct cooker	00-356495	30%	pipe covering	OMA	60 ft. 4 in.	O.D. HPS/R	28	III		\$535	\$335	\$870	
behind caustic tank-against south wall	00-356495	30%	pipe covering	OMA	16 ft. 8 in.	O.D. HPS/R	28	III		\$226	\$162	\$388	
behind caustic tank-against south wall	00-356499	20%	wrapped cardboard/paper pipe	OMA	8 ft. 8 in.	O.D. HPS/R	28	III		\$113	\$81	\$194	
center E to W-along beam-near ceiling	00-356603	30%	pipe covering	OMA	90 ft. 6 in.	O.D. PL	28	III		\$1,168	\$730	\$1,898	
east side-mash filter-near floor	00-356603	30%	pipe covering	OMA	6 ft. 6 in.	O.D. PL	28	III		\$78	\$49	\$127	
east side-mash filter-near floor	00-356603	30%	pipe covering	OMA	6 ft. 4 in.	O.D. PL	28	III		\$54	\$33	\$87	
east wall-near adjunct cooker-at floor	00-356603	30%	pipe covering	OMA	4 ft. 10 in.	O.D. PL	28	III		\$75	\$56	\$131	
below adjunct, convertor & mash tub tanks	00-356603	30%	pipe covering	OMA	60 ft. 10 in.	O.D. PL	28	III		\$1,132	\$838	\$1,970	
east wall-near adjunct cooker-at floor	00-356603	30%	pipe covering	OMA	22 ft. 6 in.	O.D. PL	28	III		\$286	\$178	\$464	
convertor tank	07-356483	35%	boiler/tank insulation	OMB	600 sq.ft.		28	III		\$16,950	\$13,578	\$30,528	
	07-356484	40%					28	III					
	07-356485	40%					28	III					
adjunct cooker	08-356486	40%	boiler/tank insulation	OMB	600 sq.ft.		28	III		\$16,950	\$13,578	\$30,528	
	08-356487	40%					28	III					
	08-356488	40%					28	III					
mash tub	09-356489	50%	boiler/tank insulation	OMB	600 sq.ft.		28	III		\$16,950	\$13,578	\$30,528	
	09-356490	50%					28	III					

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3080

caustic tank	09-356491	0X					28 III			
	10-356492	50X	boiler/tank insulation	OMB	500 sq.ft.		28 III	\$14,125	\$11,315	\$25,440
	10-356493	50X					28 III			
	10-356494	50X					28 III			
below adjunct cooker	11-356496	40X	mjp on pipe covering	OMA	25 6 in. O.D.	HPS/R	28 III	\$967	\$568	\$1,535
below convertor tank	11-356496	40X	mjp on pipe covering	OMA	35 4 in. O.D.	HPS/R	28 III	\$983	\$546	\$1,529
just northeast of caustic tank	11-356496	40X	mjp on pipe covering	OMA	2 6 in. O.D.	HPS/R	28 III	\$77	\$45	\$122
below mash tub	11-356496	40X	mjp on pipe covering	OMA	30 4 in. O.D.	HPS/R	28 III	\$843	\$468	\$1,311
below adjunct cooker	11-356496	40X	mjp on pipe covering	OMA	6 10 in. O.D.	HPS/R	28 III	\$376	\$235	\$611
just northeast of caustic tank	11-356496	40X	mjp on pipe covering	OMA	8 4 in. O.D.	HPS/R	28 III	\$225	\$125	\$350
below adjunct cooker	11-356496	40X	mjp on pipe covering	OMA	27 4 in. O.D.	HPS/R	28 III	\$758	\$421	\$1,179
south of mash filter	11-356496	40X	mjp on pipe covering	OMA	2 8 in. O.D.	HPS/R	28 III	\$96	\$57	\$153
below convertor tank	11-356496	40X	mjp on pipe covering	OMA	5 6 in. O.D.	HPS/R	28 III	\$193	\$114	\$307
below mash tub	11-356496	40X	mjp on pipe covering	OMA	14 6 in. O.D.	HPS/R	28 III	\$542	\$318	\$860
	11-356497	50X					28 III			
	11-356498	50X					28 III			
below adjunct, convertor & mash tub tanks	21-356604	60X	mjp on pipe covering	OMA	10 10 in. O.D.	PL	28 III	\$626	\$391	\$1,017
center E to W-along beam-near ceiling	21-356604	60X	mjp on pipe covering	OMA	10 6 in. O.D.	PL	28 III	\$387	\$227	\$614
east wall-near adjunct cooker-at floor	21-356604	60X	mjp on pipe covering	OMA	6 6 in. O.D.	PL	28 III	\$232	\$136	\$368
east wall-near adjunct cooker-at floor	21-356604	60X	mjp on pipe covering	OMA	2 10 in. O.D.	PL	28 III	\$125	\$78	\$203
	21-356605	60X					28 III			
	21-356606	60X					28 III			

AREA COMMENTS

AREA # 04 TOTAL \$78,521 \$60,463 \$138,984

The materials are in fair condition with localized contact and water damage. The materials are approximately 1' to 10' from the floor. At a minimum, it is recommended that the materials be repaired and monitored. If removal is planned, extensive gross removal procedures are recommended. This appears to be a high traffic area.

AREA NUMBER: 05

AREA DESCRIPTION: 3rd Floor-Part #21-Tank Top Room

AREA AVERAGE % ASBESTOS: 30X

LOCATION OF THE MATERIAL	SAMPLE NUMBER	ASB	MATERIAL DESCRIPTION	O&M CODE	QUANTITY	UNITS OF MEASURE	PIPE ID	EXP POT	PL	REMOVAL COSTS	REPLACEMENT COSTS	TOTAL COSTS
north wall-by adjunct cooker	00-356495	30X	pipe covering	OMA	15 ft.	4 in. O.D.	HPS/R	27 III		\$134	\$84	\$218
north wall-by adjunct cooker	00-356495	30X	pipe covering	OMA	10 ft.	8 in. O.D.	HPS/R	27 III		\$141	\$101	\$242
north wall-by adjunct cooker	00-356495	30X	pipe covering	OMA	10 ft.	12 in. O.D.	HPS/R	27 III		\$220	\$169	\$389
south wall-behind caustic tank	00-356495	30X	pipe covering	OMA	30 ft.	6 in. O.D.	HPS/R	27 III		\$389	\$243	\$632
south wall-behind caustic tank	00-356495	30X	pipe covering	OMA	10 ft.	4 in. O.D.	HPS/R	27 III		\$89	\$56	\$145
south wall-behind caustic tank	00-356495	30X	pipe covering	OMA	20 ft.	10 in. O.D.	HPS/R	27 III		\$377	\$279	\$656
south wall-behind caustic tank	00-356499	20X	wrapped cardboard/paper pipe	OMA	10 ft.	10 in. O.D.	HPS/R	27 III		\$189	\$140	\$329
next to mash tub	00-356603	30X	pipe covering	OMA	22 ft.	6 in. O.D.	PL	27 III		\$286	\$178	\$464
next to adjunct cooker	00-356603	30X	pipe covering	OMA	27 ft.	6 in. O.D.	PL	27 III		\$350	\$219	\$569
next to convertor tank	00-356603	30X	pipe covering	OMA	12 ft.	6 in. O.D.	PL	27 III		\$156	\$97	\$253
next to adjunct cooker	00-356603	30X	pipe covering	OMA	25 ft.	8 in. O.D.	PL	27 III		\$354	\$253	\$607

ASBESTOS ASSESSMENT SURVEY

H-K Building 21
Project Number: 0980193E
Project: G. HEILEMAN BREWERY "E"
Date Inspected: 03/21/89
Inspector: TIM SWARTZ

Building Number: 21/22
Building Name: BREWHOUSE/STOCK CELLARS
SEATTLE, WASHINGTON
Building Type: BREW/STOCK
Year Constructed: 1948

next to adjunct cooker	00-356603	30%	pipe covering	OMA	12 ft. 4 in. O.D. PL	27 III	\$107	\$67	\$174
next to mash tub	00-356603	30%	pipe covering	OMA	40 ft. 4 in. O.D. PL	27 III	\$357	\$223	\$580
next to mash tub	00-356603	30%	pipe covering	OMA	7 ft. 8 in. O.D. PL	27 III	\$99	\$71	\$170
next to convertor tank	00-356603	30%	pipe covering	OMA	12 ft. 8 in. O.D. PL	27 III	\$170	\$121	\$291
next to convertor tank	00-356603	30%	pipe covering	OMA	12 ft. 4 in. O.D. PL	27 III	\$107	\$67	\$174
north wall-by adjunct cooker	11-356496	40%	mjp on pipe covering	OMA	5 4 in. O.D. HPS/R	27 III	\$140	\$78	\$218
south wall-behind caustic tank	11-356496	40%	mjp on pipe covering	OMA	2 4 in. O.D. HPS/R	27 III	\$56	\$31	\$87
south wall-behind caustic tank	11-356496	40%	mjp on pipe covering	OMA	6 10 in. O.D. HPS/R	27 III	\$376	\$235	\$611
north wall-by adjunct cooker	11-356496	40%	mjp on pipe covering	OMA	1 8 in. O.D. HPS/R	27 III	\$48	\$28	\$76
south wall-behind caustic tank	11-356496	40%	mjp on pipe covering	OMA	2 6 in. O.D. HPS/R	27 III	\$77	\$45	\$122
	11-356497	50%				27 III			
	11-356498	50%				27 III			
south wall-behind caustic tank	20-356600	70%	mjp on wrapped cardboard/paper	OMA	6 10 in. O.D. HPS/R	27 III	\$376	\$235	\$611
	20-356601	60%				27 III			
	20-356602	0%				27 III			
next to mash tub	21-356604	60%	mjp on pipe covering	OMA	6 8 in. O.D. PL	27 III	\$289	\$170	\$459
next to convertor tank	21-356604	60%	mjp on pipe covering	OMA	4 8 in. O.D. PL	27 III	\$193	\$113	\$306
next to adjunct cooker	21-356604	60%	mjp on pipe covering	OMA	6 4 in. O.D. PL	27 III	\$169	\$94	\$263
next to adjunct cooker	21-356604	60%	mjp on pipe covering	OMA	8 8 in. O.D. PL	27 III	\$385	\$226	\$611
next to mash tub	21-356604	60%	mjp on pipe covering	OMA	8 6 in. O.D. PL	27 III	\$309	\$182	\$491
next to convertor tank	21-356604	60%	mjp on pipe covering	OMA	2 4 in. O.D. PL	27 III	\$56	\$31	\$87
next to adjunct cooker	21-356604	60%	mjp on pipe covering	OMA	12 6 in. O.D. PL	27 III	\$464	\$273	\$737
next to mash tub	21-356604	60%	mjp on pipe covering	OMA	12 4 in. O.D. PL	27 III	\$337	\$187	\$524
next to convertor tank	21-356604	60%	mjp on pipe covering	OMA	4 6 in. O.D. PL	27 III	\$155	\$91	\$246
	21-356605	60%				27 III			
	21-356606	60%				27 III			

AREA COMMENTS

The materials are in good condition with minor contact damage. The materials are approximately 1' to 12' from the floor. At a minimum, it is recommended that the materials be repaired and monitored. If removal is planned, extensive gross removal procedures are recommended. This appears to be a high traffic area.

AREA # 05 TOTAL \$6,955 \$4,387 \$11,342

***** AREA NUMBER: 06			AREA DESCRIPTION: 4th Floor-Part #21-Grain Hopper Room				AREA AVERAGE % ASBESTOS: 42%				*****		
LOCATION OF THE MATERIAL	SAMPLE NUMBER	ASB	MATERIAL DESCRIPTION	O&M CODE	QUANTITY	UNITS OF MEASURE	PIPE ID	EXP POT	PL	REMOVAL COSTS	REPLACEMENT COSTS	TOTAL COSTS	
along south & east walls	00-356608	50%	pipe covering	OMA	4	ft. 4 in. O.D. HPS/R	27	III		\$36	\$22	\$58	
along south & east walls	00-356608	50%	pipe covering	OMA	22	ft. 6 in. O.D. HPS/R	27	III		\$286	\$178	\$464	
along south & east walls	00-356608	50%	pipe covering	OMA	100	ft. 12 in. O.D. HPS/R	27	III		\$2,202	\$1,693	\$3,895	
closet next to south doorway-at ceiling	00-356608	50%	pipe covering	OMA	5	ft. 6 in. O.D. HPS/R	27	III		\$65	\$41	\$106	
closet west of elevator	00-356608	50%	pipe covering	OMA	10	ft. 6 in. O.D. HPS/R	27	III		\$130	\$81	\$211	
south wall-above exit & elevator	00-356608	50%	pipe covering	OMA	20	ft. 6 in. O.D. HPS/R	27	III		\$260	\$162	\$422	
east center area-next to east wall	00-356612	0%	wrapped cardboard/paper pipe	OMA	24	ft. 6 in. O.D. DW							
along south & east walls	00-356730	40%	pipe covering	OMA	90	ft. 12 in. O.D. DW	27	III		\$1,982	\$1,524	\$3,506	

HALL-KIMBRELL ENVIRONMENTAL INC.

Page 49

06/09/89

RCLLC 0003221

ASBESTOS ASSESSMENT SURVEY

H-K Building #21
 Project Number: 0980193E
 Project: G. HEILEMAN BREWERY "E"
 Date Inspected: 03/21/89
 Inspector: TIM SWARTZ

Building Number: 21/22
 Building Name: BREWHOUSE/STOCK CELLARS
 SEATTLE, WASHINGTON
 Building Type: BREW/STOCK
 Year Constructed: 1948

along south & east walls	19-356731	50%	mjp on pipe covering	OMA	4 12 in. O.D.	DW	27 III	\$303	\$190	\$493
	19-356732	40%					27 III			
	19-356733	45%					27 III			
along south & east walls	22-356609	0%	mjp on pipe covering	OMA	6 6 in. O.D.	HPS/R	27 III	\$232	\$136	\$368
along south & east walls	22-356609	0%	mjp on pipe covering	OMA	4 12 in. O.D.	HPS/R	27 III	\$303	\$190	\$493
	22-356610	60%					27 III			
	22-356611	10%					27 III			

AREA COMMENTS

The materials are in good condition with minor contact and water damage. The materials are approximately 1' to 16' from the floor. At a minimum, it is recommended that the materials be repaired and monitored. If removal is planned, extensive gross removal procedures are recommended. This appears to be a low traffic area.

AREA # 06 TOTAL \$5,799 \$4,217 \$10,016

*****	AREA NUMBER: 07	AREA DESCRIPTION: 5th Floor-Part #21	AREA AVERAGE X ASBESTOS: 43%	*****
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LOCATION OF THE MATERIAL	SAMPLE NUMBER	ASB	MATERIAL DESCRIPTION	O&M CODE	QUANTITY	UNITS OF MEASURE	PIPE ID	EXP POT	PL	REMOVAL COSTS	REPLACEMENT COSTS	TOTAL COSTS
southwest area-by scales	00-356613	60%	pipe covering	OMA	8 ft. 4 in.	O.D. HPS/R	27 III			\$71	\$45	\$116
southeast corner	00-356617	10%	wrapped cardboard/paper pipe	OMA	12 ft. 6 in.	O.D. DW	27 III			\$156	\$97	\$253
southwest area-by scales	23-356614	60%	mjp on pipe covering	OMA	2 4 in.	O.D. HPS/R	27 III			\$56	\$31	\$87
	23-356615	60%					27 III					
	23-356616	60%					27 III					
southeast corner	24-356618	60%	mjp on wrapped cardboard/paper	OMA	2 6 in.	O.D. DW	27 III			\$77	\$45	\$122
	24-356619	60%					27 III					
	24-356620	60%					27 III					

AREA COMMENTS

The materials are in good condition with minor contact and water damage. At a minimum, it is recommended that the materials be repaired and monitored. If removal is planned, glove bag removal procedures are recommended. This appears to be a low traffic area.

AREA # 07 TOTAL \$360 \$218 \$578

*****	AREA NUMBER: 08	AREA DESCRIPTION: Ground Floor	AREA AVERAGE X ASBESTOS: 4%	*****
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LOCATION OF THE MATERIAL	SAMPLE NUMBER	ASB	MATERIAL DESCRIPTION	O&M CODE	QUANTITY	UNITS OF MEASURE	PIPE ID	EXP POT	PL	REMOVAL COSTS	REPLACEMENT COSTS	TOTAL COSTS
spent grain room-south wall	03-356469	0%	pipe covering	OMA	15 ft. 12 in.	O.D. RS/R	12 IV			\$330	\$254	\$584
south stairwell-at ceiling	03-356469	0%	pipe covering	OMA	6 ft. 12 in.	O.D. RS/R	12 IV			\$132	\$102	\$234
stock cellar H-against east wall	03-356469	0%	pipe covering	OMA	40 ft. 12 in.	O.D. RS/R	12 IV			\$881	\$677	\$1,558
	03-356470	5%					12 IV					

ASBESTOS ASSESSMENT SURVEY

H-K Building #21
 Project Number: 0980193E
 Project: G. HEILEMAN BREWERY "E"
 Date Inspected: 03/21/89
 Inspector: TIM SWARTZ

Building Number: 21/22
 Building Name: BREWHOUSE/STOCK CELLARS
 SEATTLE, WASHINGTON
 Building Type: BREW/STOCK
 Year Constructed: 1948

	03-356471	6%	12 IV	
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AREA COMMENTS

AREA # 08 TOTAL \$1,343 \$1,033 \$2,376

The material is in good condition. The material is approximately 9' from the floor. At a minimum, it is recommended that the material be maintained and monitored. If removal is planned, glove bag removal procedures are recommended. This appears to be a high traffic area.

*****	AREA NUMBER: 09	AREA DESCRIPTION: 2nd Floor	AREA AVERAGE % ASBESTOS: %	*****
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LOCATION OF THE MATERIAL	SAMPLE NUMBER	ASB	MATERIAL DESCRIPTION	O&M CODE	QUANTITY	UNITS OF MEASURE	PIPE ID	EXP POT	PL	REMOVAL COSTS	REPLACEMENT COSTS	TOTAL COSTS
north brew kettle	00-999999	%	boiler/tank insulation	OMB	180	sq.ft.				\$5,085	\$4,073	\$9,158
south brew kettle	00-999999	%	boiler/tank insulation	OMB	180	sq.ft.				\$5,085	\$4,073	\$9,158
mezzanine level-whirlpool tank	00-999999	%	boiler/tank insulation	OMB	630	sq.ft.				\$17,798	\$14,257	\$32,055

AREA COMMENTS

AREA # 09 TOTAL \$27,968 \$22,403 \$50,371

The material has a metal covering, making sample collection impossible. At a minimum, it is recommended that the material be maintained and monitored. If removal is planned, extensive gross removal procedures are recommended. This appears to be a high traffic area. This material has a stainless steel covering.

*****	AREA NUMBER: 10	AREA DESCRIPTION: 3rd Floor-Tank Top Room	AREA AVERAGE % ASBESTOS: %	*****
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LOCATION OF THE MATERIAL	SAMPLE NUMBER	ASB	MATERIAL DESCRIPTION	O&M CODE	QUANTITY	UNITS OF MEASURE	PIPE ID	EXP POT	PL	REMOVAL COSTS	REPLACEMENT COSTS	TOTAL COSTS
mash tub	00-999999	%	boiler/tank insulation	OMB	152	sq.ft.				\$4,294	\$3,440	\$7,734
adjunct cooker	00-999999	%	boiler/tank insulation	OMB	152	sq.ft.				\$4,294	\$3,440	\$7,734
converter tank	00-999999	%	boiler/tank insulation	OMB	152	sq.ft.				\$4,294	\$3,440	\$7,734
caustic tank	00-999999	%	boiler/tank insulation	OMB	152	sq.ft.				\$4,294	\$3,440	\$7,734

AREA COMMENTS

AREA # 10 TOTAL \$17,176 \$13,760 \$30,936

The material has a metal covering, making sample collection impossible. At a minimum, it is recommended that the material be maintained and monitored. If removal is planned, extensive gross removal procedures are recommended. This appears to be a high traffic area.

BUILDING # 21 TOTAL \$231,255 \$176,138 \$407,393